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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,467	07/11/2003	Brian V. Jenkins	7701	3252

49459 7590 05/04/2007

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EXAMINER	
JASTRZAB, KRISANNE MARIE	
ART UNIT	**PAPER NUMBER**
1744	

MAIL DATE	DELIVERY MODE
05/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/617,467	JENKINS ET AL.	
	Examiner	Art Unit	
	Krisanne Jastrzab	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/5/2007 has been entered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al., U.S. patent No. 6,762,832 B2 in view of Rao et al., U.S. patent No. 5,278,074 and Jenkins et al., U.S. patent No. 5,922,606.

Fisher et al., teaches the inclusion of a corrosion inhibitor, particularly an aromatic triazole such as benzotriazole and tolytriazole, in aqueous systems including treatment baths for copper—containing semiconductors or circuits. The concentration of corrosion inhibitor present is monitored by a UV spectroscopic system and feedback control is actuated based on the monitored concentration. Flow-through sample cells are provided at a plurality of locations in the aqueous system with pump and valve means being provided for the controlled introduction of fluids and corrosion inhibiting solutions based on the monitored concentrations. Sampling from the system can be

performed continuously. Precise control of the desired concentration of the corrision inhibitor is achieved with the monitoring and feedback control disclosed.

Rao et al., teach substituting a fluorometric monitoring system for spectroscopic systems used to monitor corrosion inhibitor concentrations in copper-containing aqueous systems, those inhibitors preferably including aromatic azoles such as benzotriazole and tolytriazole. Rao et al., teach that azoles are inherently fluorescent and that a fluorescent monitoring system is more accurate and more effective than spectroscopic system whose radiation acts to degrade the corrosion inhibiting composition, and thus provides more accurately controlled dosing of the inhibitor. Monitoring with the fluorescent system can occur either intermittently or continuously. Rao et al., further teach the provision of a sidestream from the aqueous system being monitored and pump and valve means to actuate the responsive dosage control. See column 1, lines 11-51, column 5, line 55 through column 6, line 21 and column 11, lines 10-30.

Jenkins et al., teach the well-recognized dependence of fluorescence on both temperature and pH in systems providing chemical analysis based on fluorescence. See column 4, lines 1-10.

It would have been obvious to one of ordinary skill in the art to substitute the fluorescent measurement/monitoring taught by Rao et al., for the spectroscopic monitoring in the corrosion control system of Fisher et al. and to apply the monitoring system to corrosion control in any aqueous fluid, including ultrapure, because the fluorescent system does not degrade the preferred corrosion inhibitors, and in fact,

utilizes their inherent characteristics for more accurate concentration readings. It would further have been obvious to provide means to compensate for measured temperature and pH in the system to optimize the accuracy of the fluorescence measurement, in view of the known and expected dependence of fluorescence on both temperature and pH.

With respect to claims 4-6, both references teach application and monitoring of the inhibitor having concentration within the instantly claimed ranges. See column 11, lines 54-56 of Rao et al., and column 7, lines 50-55 of Fisher et al.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Thurs. 6:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Krisanne Jastrzab
Primary Examiner
Art Unit 1744

May 2, 2007